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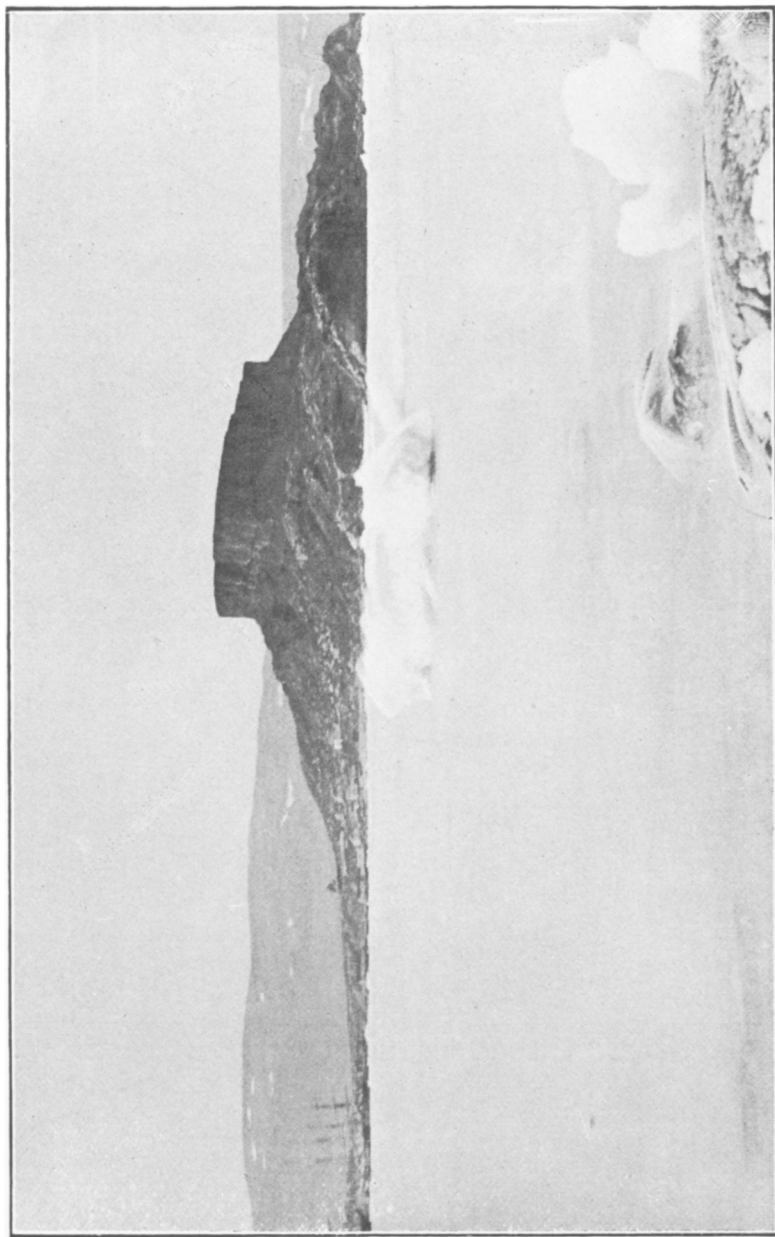


FIG. 6.

LABRADOR, HENLEY HARBOR AND CASTLE ISLAND.

From a Photograph by W. BRADFORD, ESQ.

A SUMMER'S CRUISE TO NORTHERN LABRADOR.

II. HENLEY HARBOR AND CAPE CHARLES.

BY

ALPHEUS S. PACKARD.

As we entered Henley Harbor the scene was unique. The straits were clear of ice, though a few days earlier the harbor had been packed with it, and remnants were stranded along the shore, or carried hither and thither with the tides. The outlines of some of the pieces were beautiful; many were painted with green tints while the sun was high, but later in the afternoon the greens were succeeded by bright azure blues, contrasting with the almost cobalt blues of the distant Laurentian hills. The entrance to Henley Harbor is very fine, the sea cliffs being over 200 feet high, while behind are the peculiar outlines of the Laurentian gneiss, rising in long swells like whales' backs to a height of perhaps five or six hundred feet. Henley Harbor lies under the lofty, precipitous basaltic cliffs of the Devil's Dining Table, which caps Henley Island. We sail through a fleet of Newfoundland fishermen, whose low, thick masts, strong, clumsy rigging, and ironed and planked hulks—for they were sealers, and had not stopped to doff their ice-armor—contrasted with the beautiful model, slender,

tapering masts and spars of our fleeter craft. Their decks were crowded with men, women and children, dogs and goats, for these people had, like the old Norsemen, brought their families and stock with them for a summer's stay on the coast. Ashore, under the dark, beetling crag, lay the fishing hamlet of Henley Harbor. The houses were small and mean, the flat roofs of some covered with turf, the grass or moss growing on them, while the fish-houses and "stages" were of the meanest description.

After coming to anchor we were boarded by the captain of one of the sealers, a brigantine of perhaps 140 tons burden, lately in from Carbonear in Conception bay. Her bows and also her sides were planked and heavily ironed to resist the ice in the spring-sealing in the Gulf. The captain had, immediately after discharging his cargo of sealskins and blubber—and the smells rising up through the hold and companion-way proved the fact *ad nauseam*—only delayed long enough in port to put in 130 bushels of salt, and then cleared for the Labrador coast without stopping to strip off the outer planking. The captain was an intelligent, stalwart, English-born man only twenty years old, who had been to sea for six years. He was frank and communicative, and in half an hour gave us some insight into the mysteries of fishing and sealing. He had inherited the business, his father having been a sealer for fifty years. He owned the vessel and had brought along a cook; he took, passage free, eleven families, numbering 130 souls, men, women and children, with goats, dogs, cats, and provisions for the whole party, and was to land them at some harbor on the coast north of the straits, where they might

spend the fishing season in their rude summer houses, called "tilts."

During the voyage up the women are stowed aft and in the hold, and in a storm—and when are there two continuously pleasant days on this coast?—the hatches are battened down, the food is handed to them through a hole in the cabin, and then they are left to take care of themselves as best they can until the storm clears off, when the hatches are removed, and the forlorn passengers can take a breath of fresh air.

The captain does not take an active part in the fishing, but makes his profits by charging for freight on the fish. If the season is a good one and his vessel is soon filled, he goes back to Newfoundland and charts more vessels to carry back all the fish which have been caught. The season lasts from the end of June until about the 20th of October.

The season for the seal fishery during the past spring was from March 25th until June 4th. The gulf, of course, was filled with ice, no water being in sight from shore. A successful "catch" of seals is "better than 9000." Each vessel carries fourteen boats, which are piled up on deck; four men man a boat; each man is provided with a gaff or boat-hook and a piece of ratline three and one-half fathoms long. On coming up to where the seals are lying, the crew land on the ice. The sealer runs up to a seal lying near its hole, which may be only a rod or so from the vessel or boat, clubs it—and it is easily stunned and killed with one or two blows—sculps it, then peels off the skin and blubber, leaving the carcass on the ice-floe. Each man can tie up five seal-skins, and drag them to the vessel, and sally out again, rushing

ahead and racing with the other crews of "bloodhounds." The scene is one of excitement and peril, the ice constantly endangering the vessel, which is liable to be "nipped" and founder, leaving the ship-wrecked sealers to burn their vessel and make their way ashore over the ice. One of Mr. Bradford's most successful paintings represents a sealer "nipped" by the ice, the crew abandoning her after having set fire to their vessel, and walking in mournful steps over the ice in the direction of land. The delicate blues of the ice, the sullen neutral tints of the sky, the red glare of the flames breaking out of the burning ship, and the warm tints of the costumes of the men in the foreground, vividly portray a most tragic scene, enacted only too often on the Gulf of St. Lawrence.

To return to our statistics—a "crew" of sealers on the ice is composed of fifty men; each one, if successful, securing five seals. Two hundred and fifty pelts may be brought back after each sally from the vessel. In this way, when the seals are abundant, from 2500 to 3000 sealskins are taken in a single day, 9000 making a cargo. The shares in the enterprise are £60 each man. The captain takes half, "leaving the men in the lurch," as our informant said, which being interpreted means that the men realize little or no profits from the voyage.

A sealskin is worth \$4.00, a full cargo, perhaps, selling in the rough to traders for \$30,000 or \$40,000; the profits on a full cargo are therefore considerable, but the men's "half," being distributed among a large number, does not amount to much for each man. This spring (1864) the seal fishery was a failure.

The young seals are killed by knocking them on the head with a boat-hook or club, and the old ones by shoot-

ing them with heavily loaded old muskets. The hunters make holes in the ice and then watch for their heads to appear above water. Of all the different kinds of seals, the Greenland or harp seal is the most ferocious.

The summer at Henley Harbor was a very backward one; the salmon had not yet appeared at the mouths of the bays and rivers; nor had the cod and their natural food, the capelin, moved in from the deep water. The enormous extent of floe-ice which skirted the coast had lowered the temperature of the sea; at the same time the ice-fields had prevented any icebergs from entering the straits. The prevailing winds were cold and easterly; the cold climate, the strong tides and the three-knot Labrador current passing around the cape into and down the Straits of Belle Isle, render navigation here uncertain and dangerous.

June 27. The light south-easterly wind brought into the straits the fog which had lain all the day previous outside of our harbor, and inland the clouds rested on the hills; the day being dark and lowery. In the morning some of us rowed three miles up to the head of Pitt's Arm, in Temple Bay, a deep fjord penetrating the high gneiss hills, into which pours, over a stony channel, a rapid trout stream about five yards across. The sandy beach was an ancient sea-bottom containing deep-sea shells.¹ On each side of the mouth of the brook were two terraces; on the upper terrace, which was about forty feet above the sea, were two winter houses. I particularly observed the appearance of these houses. One

¹ The shells were *Buccinum undatum*, a variety with two ribs on the whorls; *Saxicava rugosa*, *Mya uddevallensis*, *Macoma proxima*, *Serripes groenlandica*, *Natica clausa*, of large size, and a branching polyzoon, *Celleporaria surcularis*.

was 21x15 feet in size, the walls of upright, thick boards, the frame of poles; the flat roof was constructed of poles placed near together and covered with birch and hemlock bark, the strips, which were a foot wide, being placed crosswise; the eaves were scarcely five feet above the ground, and the floor was in part of boards and in part of turf. The door, hung on iron hinges, and closed with a wooden latch and string, was only four and a half feet high, and there was a single window, 16x15 inches. Within were three beds and a settle. The lumber for these shanties had evidently, by the piles of sawdust near by, been sawn upon the spot and taken from the Labradorian forest of firs near at hand, which measured twelve inches through at the butt, and were about twenty feet high. In their branches a robin and a sparrow were flitting about. The willow bushes were here five feet in height. On the sides of the sandy terraces were blackberry and raspberry bushes, and currants, shadberries and golden thread just in blossom, while the alders were still in flower.

I dredged in water about fifty fathoms deep, in Chateau Bay, bringing up among molluscs fine large *Leda pernula*, *Astarte banksii*, *Lyonsia arenosa*, *Cardium islandicum*; rare sandstars, and young and old Arctic crabs (*Chionæcetes opilio*).

The 28th was almost wintry in its cold, changeable weather. A northeast storm raged, with a few drops of rain and a little snow in the forenoon, while after dinner there was a thick snow storm, the hill-tops being whitened with snow for several hours, which, however, disappeared by the evening. The water in the harbor was intensely cold, and the *Mertensia* and *Clione*, those beautiful creatures of the icy seas, abounded.

The forenoon was spent in examining the trap rocks on the harbor side of Henley Island, and in shore-collecting. The rock-weeds or fuci do not grow luxuriantly on the coast of Labrador, but are stunted and dwarfed, like their more highly-born relatives of the vegetable kingdom ashore. Below tide-mark, however, though the tide on the Labrador coast rises and falls only two or three feet, the Devil's Apron or *Laminaria* is seen, but not so common and large as on the coast of Maine. Life between tide-marks is scanty compared with the New England coast. We never detected the common whelk that gives the purple dye (*Purpura lapillus*); but the two *Littorinas* (*L. rudis*, less commonly *L. littoralis*), were common; these are circumpolar forms, abounding at the water's edge at Greenland.

In this region scarcely a sea-bird was to be seen, and rarely even a gull; but on one occasion three ducks, while a lonely raven flew about the cliff. Insect life was scanty, and with the animals and plants showed in its appearance a strange intermixture of what at home would have been characteristic of early April and late May. Frogs are seen here, we were told: in the garden the turnips were just up.

Thirty years ago there was but a single house at Henley Harbor, and none at Red Bay, where now there are thirty. The fish and birds here, meanwhile, have vastly decreased in numbers. The fish are principally cod, salmon and herring. Old Captain French, our pilot, never saw a hake on the Labrador coast, and only two haddock, though both kinds are abundant and troublesome to cod fishermen at Bay Chaleur, on the New Brunswick shore.

Detained another day by headwinds and rain in the early part of the day, the wind in the evening hauled around to the S.W., giving us a fine evening sky. I dredged in the morning in the rain over the side of the vessel in four fathoms, the bottom rich in the red sea weed (*Ptilota*), the Desmarestia, and the sea-colander (*Agarum turneri*), and besides a portly queer-spined amphipod (*Ampithonotus cataphractus*), which carried its brood of young, also bristling with spines, a fine large *Crangon boreas* with other bright red shrimps came up, with a singular, large, active, leech-like worm (*Pontobdella*) attached; besides a beautiful shell-less mollusc, there occurred a species of *Eolis*, unlike any seen before. In the afternoon we sailed out two or three miles to the mouth of the harbor, and dredged in from ten to twenty fathoms on a hard, pebbly bottom, evidently the continuation of the beach, and showing that the land was formerly at least from 100 to 300 feet higher than at present; besides *Lyonsia arenosa*, *Kennerlia glacialis* and other shells and crustaceans, the interesting *Nebalia bipes* was taken: it was also found in as shallow water as four fathoms. This form is less than half an inch in length and is found throughout the Arctic ocean, is common on the coast of Norway, and its genus is now regarded as the sole existing type of a distinct order (*Phyllocarida*), whose gigantic fossil prototypes, some of them nearly two feet in length, occur in the palæozoic rocks in America and Europe.

The next day also we were wind-bound, but the gale was from the south-west; the wind blew very fresh, having a good sweep over the Gulf, the breakers ran high, as nearly all the harbors in Southern Labrador, *i. e.*, south

and west of Belle Isle, are exposed to gales from this direction. We put out our kedge anchor, and frequently had to haul in a part of the cable to keep the vessel off the rocks. We should have put out to sea and taken advantage of the gale to go on our course up the coast, but were afraid of running upon a sunken rock at the mouth of the "tickle" or narrow passage forming our harbor.

A part of the day was spent about and upon the Devil's Dining Table. This is a mass of columnar basalt, which has been described by Lt. Baddely in the Transactions of the Literary and Historical Society of Quebec for 1829. The height of the rock above the sea is 225 feet, to the base of the pillars of basalt 180 feet; the height of the columns themselves being 25 feet. The columns are quite regularly prismatic, and of nearly the same size and nature as those of the Giant's Causeway.

Ascending the terrace, carpeted with the mountain trident, we climbed up the cliff over the basaltic steps, by the only means of ascent situated on the eastern side, where the columns had been worn away by a little stream, on top of the flat table, which was 125 paces broad at the widest part. The ends of the prismatic columns occasionally protruded through the dense matted covering of curlew-berry or *Empetrum*. The air was cold, chilly, reeking with the sea-drift, and the gale buffeted my face as if a demon were trying to throw me over the cliff, down to the sea-margin of former days.

From the summit of the table the view was an interesting one, though the atmosphere was very hazy. Belle Isle was shut out of sight by a thin bank of fog or thickened vapor which lay on the sea to the eastward. A few

miles up the shore was another cliff of basaltic columns, the bases of the pillars wrapped in snow. There are in this bay eleven sea-terraces which mark the former levels of the sea, eight of which could be seen from the top of this rock. On the west side the terraces slope towards the north, while on Castle Island they slope towards the southwest. The most distinct example of these terraced sea-beaches lay at our feet, forming the western shore of Henley Island (on which the Devil's Dining Table is situated). This magnificent beach rises 180 feet above the sea-level, and when the sea covered it the waves washed the base of the basaltic pillars, as indicated by the debris of broken columns forming the talus at the foot of the cliff on which we stood. This beach is composed of three terraces, and the two lower ones widen out into delta-like expansions on the north-west end of the island, which are free from the usual covering of moss and curlew-berry, and are so distinctly marked with windrows of pebbles and gravels that it would seem as if they had been but yesterday thrown up by the waves.

Greville's Fort,¹ as we may name it, the ruins of which are quite distinct, was built on a broad terrace not far above the sea. On the mainland, north a little east, are three beaches with two terraces, which were beautifully marked, and corresponded with the two lower terraces at our feet, though covered with the rich deep green of the *Empetrum* leaves. Pitt's Arm and Chateau Bay are also terraced, the beaches themselves of unequal size and

¹ According to a writer in *Harper's Magazine* for May, 1861, who describes this fort and gives a plan of it, the fortifications were supposed to have been constructed by the French Canadians, by whom it was abandoned in 1753; another author states that it was built by the Acadians.

height, but the terraces, as we should expect, are of even height throughout, as they mark the former level of the sea. One of the beaches on Chateau Bay was remarkably steep, composed of large, sea-worn boulders, and overhanging like a precipice the winter houses below. Indeed, all along the Straits of Belle Isle from the Mecatinas to this point, wherever there is sand, gravel, or boulders, the sea has, when at higher levels, rearranged and sorted them into terraced beaches or sea-margins. The future geologist who visits this coast will have an interesting task in measuring the heights of these terraces and comparing them with those of Northern Labrador, of Arctic America, of Greenland, and Northern Europe. These beaches are also seen in inland river-courses, and by every pond and lake; they are not, as along the coast of Maine and Massachusetts, concealed by vegetation, bushes or forest growths; but here, owing to the absence of bushes and trees, they were as distinct as if the Labrador peninsula had been upheaved but a year ago. Darwin has studied the formation of the terraces along the coast of South America, where the elevating forces were undoubtedly volcanic, but the nature of the causes which in the northern hemisphere have resulted in the secular elevations and depressions of the land, such as took place during and after the glacial period, is purely conjectural, and belongs to the domain of theoretical geology. To study the causes we must first learn the facts, hence the careful examination of the oscillations of the eastern coast of America from Aspinwall to high polar latitudes is of the first importance. The measurement and comparison of the ancient sea-beaches in a coast like that of Labrador and Arctic

America, where they are so easily perceived, will well repay the labor and time involved.

Robert Chambers's interesting work on the ancient sea-margins of Norway and Sweden gives valuable data for comparison with those of the opposite coast of Labrador, and from the rough observations which have been made it would seem that the oscillations were about the same, both in height above the sea, and in time, on each side of the North Atlantic. I have also seen well-marked terraces in Puget Sound which are beautifully marked, and these should be carefully measured and compared in height with those in the Arctic region and Labrador. It was with no little interest that we observed the old beaches on the Labrador coast, and we shall note their occurrence in the following pages wherever seen.

We remained on the top of the Devil's Dining Table until the sun had set and the darkness began to creep over the scene below. Whether his Satanic Majesty was concerned in the transformation which then came over the scene we will not undertake to say, but as the sun went down the rocks and hills beneath seemed to diminish in height; an undefined, subtle, neutral tint spread over the landscape; a brownish haze due to the vapor in the air came in from the sea and settled over the hills far and near, and as the twilight came on the hills were still more dwarfed in size, when the chill southwest wind from the Gulf, the coldest that blows over this exposed point, sent us back to our vessel, where the thermometer at 8 o'clock in the evening was 44° F.

The fishing hamlet of Henley Harbor consists of a few dwelling-houses, some of them inhabited during the winter, with fish-houses and light wharves, here called

“stages.” The winter houses are built of thick boards, with flat tarred roofs, the sides of the houses being well battened. The domestic animal here is the dog, Newfoundlanders—seven of them at one house—brought up by the fishermen for the summer: there were no Eskimo dogs or Eskimos at this point, though in the last century they here congregated in hundreds. The fish-houses were rude structures of one low shed, roofed with turf and built on piles, reminding us somewhat of pictures of the ancient pile-dwellings of prehistoric Switzerland.

The fisherman's sail-boat is a ponderous, clumsy affair called a “jack.” It is twenty-five or thirty feet long, with not much breadth of beam, rudely built, with short masts, and small sails stained red or black, or with both colors; the oars are of spruce, and very large and heavy, and the stern of the boat is provided with two stakes, such as whalers use for sculling.

I interviewed a Mr. Stone, one of the settlers, regarding the fisheries and hunting at this point, and he gave me the following facts: At the height of the herring fishery in August—and it should be borne in mind that this fish is only a summer visitant, not spawning on the Labrador coast, but passing up, as Hind in his work on the Labrador peninsula states, as far as Hudson's Strait—Stone has caught 200 barrels in a season. He has to pay twelve barrels for a hogshead of salt, the price of which is now (1864) very high. He secures 800 quintals of fish at 18s. a quintal, which amounts to £720 for a successful season's work. He can cure the fish on this coast during the short summer, and is now building a shed for this purpose.

Of salmon 180 quintals are taken in a good season;

they are pickled and sell at the rate of \$5.00 a quintal (112 lbs.), so that he would realize about \$900 from this fishery ; but considering that he had a family of ten children, it is not probable that on the average he more than comfortably supports his family, and in many summers the fisheries on this desolate coast are a failure. And to show what little chance there is to retrieve his fortunes by the products of the winter's hunting, he told me that last winter nothing was shot about Chateau Bay from Christmas until the first of February. During the entire winter but a single partridge was shot, while at the same time they were very abundant at Blanc Sablon, showing that possibly these birds are somewhat migratory, going in flocks from one point to another in search of food. There are now neither beaver nor otter, nor silver nor black foxes to be had ; only two or three wolves were shot, and two deer. When I asked him what the people would do if the hunting and fishing continued to fall off, he replied hopefully, and in his fisherman's dialect, " Oh, we'll have a spurt by and by." He added that the S.W. wind was in summer " the coldest wind that blows." Winter comes on in November ; by the 10th to the 20th of this month the lakes are all frozen over, and by the 20th the harbor is frozen far out into the Straits, while in winter they can go out in sledges on the ice to Belle Isle.

The people here in general were well-mannered, though rough and out-spoken, asking freely of our stores, and commenting as freely on what they considered poor returns in trade.

To return to the Devil's Dining Table, whose geology is interesting ; it is a high ovate mass with vertical sides and a flat top, which slightly inclines towards the

southwest, and consists of two layers, showing that the rock is the remains of two separate eruptions, the lower consisting of regular prismatic five-sided columns, each about two feet in diameter, fluted on the sides and curiously worn by transverse impressed lines. The basaltic mass rests upon the upturned edges of strata of Laurentian gneiss which have been penetrated by dikes of syenite. North of the basaltic cap, the underlying rocks are least disturbed, being reddish gneiss-like or foliated syenite, crumbling and quite fissile, dipping at an angle of 50° south, 25° east; just beyond, this reddish rock runs into the usual dark Laurentian gneiss of the region. Upon submitting a specimen of the basalt to Mr. J. S. Diller, lithologist of the U. S. Geological Survey, he tells me that it is a doleritic basalt.

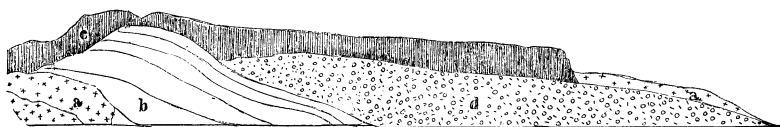


FIG. 5.—Castle Island from the West; *a*, red syenite; *b*, gneiss; *c*, basalt; *d*, raised beach.

At the southeast end of the island, along the shore looking out towards Belle Isle, the flesh-colored syenitic rocks present a rough and broken front to the ceaseless swell of the Atlantic, rising from seventy-five to a hundred feet above the waves, the beetling crags broken and pierced by deep ocean caves; with jutting headlands and little pebbly beaches nestling between them—all the characteristic scenic features of this syenite, whether at Nahant, or Mt. Desert, or on the Labrador coast.

The southern end of Castle Island repeats the geology and scenery of Henley Island, but a little farther

down, away from the sea-cliffs, the syenite and gneiss meet, and seemed splashed together, like two masses of paste or dough which has been stirred up and baked. In places, both rocks were interstratified, dipping north and south in much disturbed strata, but with a general inclination toward the north.

The first of July saw us released from our prison; the day was clear and delightful, and a light southwesterly breeze bore us along a remarkably bold and picturesque coast. About two miles from our harbor is another trap overflow capping and, at the southwest end, concealing from view the syenitic base; at the northern end the basalt is columnar.

We soon came up to our first iceberg, a magnificent pyramid of ice perhaps a hundred and fifty feet high, white as Carrara marble, smooth, as if fresh snow had fallen on it during the past night, lending it a virgin whiteness, here and there brought more clearly into relief by the subtle azure blue reflected from the sea. Across its base ran several suggestive cracks, and though we sailed within two hundred yards of it, it was rather risky, and we remembered Scoresby's stories of the disasters attending the overturning and breaking of floating bergs. Captain Handy, whose life-long experience as a whaler in Arctic regions made him a good judge, remarks as we are passing that a berg will not usually injure a vessel unless a piece of ice falls upon it, but that the waves will swamp a boat. At Resolution Island he rowed past an immense berg, so that it could almost be touched from the boat, saying to himself, "It won't last three weeks;" he had gone scarcely three ship's lengths, when, with a report like the discharge of a park of artil-

lery, it burst into a thousand pieces, many still forming large bergs; the boat was put head-to, and nearly filled with water, but there was no further danger.

Off Cape Charles the coast grows more broken and hummocky, more so than west of Chateau Bay. This is partly owing to the fact that we look directly up into the fjords and bays, and that the headlands run out towards us. We pass Battle Island, a comparatively low land,



FIG. 6.—*A*, Cape Charles, 654 ft. *B*, Hare Island. Entrance to Cape Charles Harbor. *C*, Charles Bay.

with the “ice-loom” or mirage resting over it. We were glad to pass Battle Island Harbor, which has a bad reputation, or, to use an Anglicism, is a “nasty” place. The entrance is very sinuous, the turns short, and the vessel must answer her rudder quickly when going in. Our fishermen enter it late in the season, as “it is a place that holds fish late.” Perhaps half of the harbors here



FIG. 7.—Outer Battle Island seen from the Southwest; *A*, Caribou Island.

are unknown, and the fishermen seldom have occasion to enter the innermost ones.

The ice-pack which we were soon to encounter lay north and east of us, with the “ice-blink” over it. We pass Outer Battle Island, and the “Two Sisters,” bare, low islands of nearly white gneiss rock. We now sail into the ice-pack, and are gradually surrounded by floes, though they are not near enough to impede our progress.

The shore of Caribou Island—for there are two of this name on the coast—is of a singular pale gray shade from top to bottom. The people ashore, struck by our model and spars, so unlike the other craft on this coast, set the British flag to ascertain our nationality.



FIG. 8.—Caribou Island, bearing two miles West.

We pass St. Lewis Bay, a large broad indentation, with its north shore evidently syenitic, as the sea-wall is high, and the rocks rough and fissured, and more broken than lower down; the headlands of syenite probably extend out from the gneiss mainland.

The ice-floes become larger and more hummocky than any we have seen before. A humpback whale now presents a broadside view of himself, with his angular hump, small fin, and as he “sounds,” reveals the pale underside of his tail and flukes.



FIG. 9.—Caribou Island, bearing West.

At Spear Point the outline of the coast is very rough; at the entrance to Spear Harbor, which is a shallow bight, there is a high, sugar-loaf island; two black-sailed “jacks” are entering it. Cape St. Francis is a bold, syenitic headland. Over Square Island, which now comes in sight, being fifteen miles ahead, there is a fine mirage, with castle-like, shadowy forms resting on the rock. We are now sailing between the ice-pack and the shore, one nearly as solid in appearance as the other.

The wind is still off shore, but should it change to the eastward the ice would come in upon us and choke up the bays and harbors. Behind us is a pale bluish haze which passes into a well-marked mirage, and as we sail on it raises the higher points of the land beneath, and expands above with weird, strange effects. Beyond us the mirage magnifies the larger floes into huge bergs.



FIG. 10.—North side of Fishing Ship Harbor.

In St. Francis Harbor is a “room” and a “look-out” house; a small bay beyond appears to be filled with ice. The coast at Fishing Ship Harbor is unusually rough and broken, like the waves of a chop-sea; and there appeared to be two terraces at this point, the upper one very high, but whether of gravel or of rock was difficult to distinguish. The wind now became very changeable and baffling, veering from one point to another; and our progress was compared by the Captain to sailing up the Potomac. Passing by perpendicular sea-cliffs, and a bold



FIG. 11.—Occasional Harbor.

headland on which are dead spruce trees, the rock on the north side of Occasional Harbor changes its character, becoming a gray, Labradoritic syenite, like what we afterwards found on Square Island.

After being for two weeks detained by floe-ice in Square Island, we reached Hopedale July 30th, and after spending a few days with the Moravians and Eskimo, turned our prow homeward, reaching Boston Sept. 4th.